WHAT IS CLAIMED IS:

Claim 1.   A data sample and transmission module for a power distribution system, comprising:

a microprocessor for sampling one or more first signals indicative of a condition of power in the power distribution system;

a locator device changeable between a first state and a second state; and

a network interface for placing said microprocessor in communication with a network so that said microprocessor samples said one or more first signals based in part upon a synchronization signal receivable from said network and so that said locator device changes from said first state to said second state in response to a command receivable from said network.

Claim 2.   The module as in claim 1, wherein said microprocessor is configured to package said one or more first signals in a first message and to send said first message over said data network.

Claim 3.   The module as in claim 2, wherein said microprocessor operates a circuit breaker in the power distribution system in response to a second message receivable from the data network.

Claim 4.   The module as in claim 3, wherein said locator device is a visual device or an audible device.

Claim 5.   The module as in claim 3, wherein said locator device is a light emitting diode.

Claim 6.   The module as in claim 5, wherein said locator device is off in said first state and on in said second state.

Claim 7.   The module as in claim 1, wherein said command associates the module with a virtual device.

Claim 8.   The module as in claim 1, wherein said microprocessor is configured to receive one or more second signals indicative of a condition of a circuit breaker in the power distribution system.

Claim 9.   The module as in claim 1, further comprising a power supply providing power to said microprocessor, said power supply receiving said power from a first source, a second source, or a combination thereof.

Claim 10.   The module as in claim 9, wherein said power supply provides a third signal to said microprocessor, said third signal being indicative of whether said power supply is receiving said power from said first source, said second source, or said combination.

Claim 11.   A protection system for a power distribution system, comprising
        a human machine interface;
        a central computer in communication with said human machine interface;
        a first module in communication with a first circuit breaker, said first module having a first locator device defined thereon, said human machine interface having a first representation of said first module;
        a second module in communication with a second circuit breaker, said second module having a second locator device defined thereon, said human machine interface having a second representation of said second module; and
        a network in communication with said central computer, said first module, and said second module so that said central computer controls said first and second circuit breakers, said first representation being selectable to change said first locator device from a first state to a second state.

Claim 12.   The system as in claim 11, wherein said first representation is selectable to ensure said second locator device is in said first state.

Claim 13.   The system as in claim 12, wherein said second representation is selectable to place said first locator device in said first state and said second locator device in said second state.

Claim 14.   The system as in claim 13, wherein only one of said first and second locator devices can be in said second state at any given time.

Claim 15.   The system as in claim 11, wherein the protection system has a consistent fault response time.

Claim 16.   The system as in claim 15, wherein said consistent fault response time is less than a single cycle of power in the power distribution system.

Claim 17.   A method of corresponding a virtual representation to a particular device among a plurality of devices, comprising:

      selecting the virtual representation on an interface;

      sending a first command from said interface to a central processor in response to selecting the virtual representation, said first command being representative of a locator state for the particular device that corresponds to the selected virtual representation;

      sending a second command from said central processor to the particular device in response to said first command;

      sending a third command from the plurality of devices to a locator device in response to said second command; and

      changing said locator state of at least the particular device in response to said third command.

Claim 18.   The method as in claim 17, wherein said second command is representative of said locator state for the particular device and the plurality of devices.

Claim 19.   The method as in claim 18, further comprising changing said locator state of the particular device and the plurality of devices in response to said second command.

Claim 20.   The method as in claim 18, wherein said second command changes said locator state for the particular device to a second state and said locator state for the plurality of devices to a first state.